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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/845,449	04/30/2001	Tomio Kondou	64859 CCD	2494

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EXAMINER	
DOTE, JANIS L	

ART UNIT	PAPER NUMBER
1756	

DATE MAILED: 07/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/845,449	KONDOU ET AL.	
	Examiner	Art Unit	
	Janis L. Dote	1756	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 December 1899*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4-7 and 25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4-7 and 25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. This office action is responsive to the amendment filed on May 5, 2006. Claims 1, 4-7, and 25 are pending.

2. The pigments "Naphthol Carmine F6B" and "Naphthol Carmine FBB" recited in instant claims 1 and 25 are defined by the chemical formulas (4) and (5), respectively, at page 8, lines 1-10, of the specification.

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1, 4-7, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,805,969 (Elsermans) combined with: (1) US 6,020,100 (Iwasaki), as evidenced by Chemical Abstracts (CA) Registry Numbers 77804-81-0 and 147-14-8, Industrial Organic Pigments, Table 18 at page 289, and applicants' admissions at page 8, page 9, lines 9, lines 8-16, and page 39, lines 5-7, of the instant specification (applicants' admissions I); and (2) US 5,554,478 (Kuramoto), as evidenced by applicants' admissions at page 9, lines 17-22, and at page 10, line 25, to page 11, line 4, of the instant specification (applicants' admissions II).

The claims are rejected for the reasons discussed in the office action mailed on Dec. 27, 2005, paragraph 5, which are incorporated herein by reference.

5. Claims 1, 4-7, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,593,991 (Aoki) combined with: (1) US 5,521,688 (Moser); (2) Iwasaki, as evidenced by Chemical Abstracts (CA) Registry Numbers 77804-81-0 and 147-14-8, Industrial Organic Pigments, Table 18 at page 289, and applicants' admissions I; and (3) Kuramoto, as evidenced by applicants' admissions II.

The claims are rejected for the reasons discussed in the office action mailed on Dec. 27, 2005, paragraph 6, which are incorporated herein by reference.

6. Claims 1, 4-7, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,442,428 (Takahashi) combined with: (1) Moser; (2) Iwasaki, as evidenced by Chemical Abstracts (CA) Registry Numbers 77804-81-0 and 147-14-8, Industrial Organic Pigments, Table 18 at page 289, and applicants' admissions I; and (3) Kuramoto, as evidenced by applicants' admissions II.

The claims are rejected for the reasons discussed in the office action mailed on Dec. 27, 2005, paragraph 7, which are incorporated herein by reference.

7. Claims 1, 4-7, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,188,418 B1 (Hata) combined with: (1) Moser; (2) Iwasaki, as evidenced by Chemical Abstracts (CA) Registry Numbers 77804-81-0 and 147-14-8, Industrial Organic Pigments, Table 18 at page 289, and applicants' admissions I; and (3) Kuramoto, as evidenced by applicants' admissions II.

The claims are rejected for the reasons discussed in the office action mailed on Dec. 27, 2005, paragraph 8, which are incorporated herein by reference.

8. Claims 1, 4-7, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwasaki, as evidenced by Chemical Abstracts (CA) Registry Numbers 77804-81-0 and 147-14-8, Industrial Organic Pigments, Table 18 at page 289, and applicants' admissions I, combined with: (1) Kuramoto, as evidenced by applicants' admissions II; (2) US 3,874,892 (McInally); and (3) Moser.

The claims are rejected for the reasons discussed in the office action mailed on Dec. 27, 2005, paragraph 9, which are incorporated herein by reference.

9. Applicant's arguments filed on May 5, 2006, as applied to the rejections set forth in paragraphs 5-8 above have been fully considered but they are not persuasive.

Applicants assert that none of the cited references discloses or suggests color toners that provide toner images having a "haze factor not greater than 20% when the color toner images have a weight of 8 g/m^2 and are fixed" as recited in instant claims 1 and 25. Applicants assert that examples 2 and 4 of the instant specification show that the haze factor is critically dependent on the extent of kneading in the production of the master batch from which the toner is made. Applicants assert that Iwasaki does not specify the duration of kneading in forming its master batch; and that "if a person skilled in the art were to produce color toners by replicating every detail specified in Iwasaki's Example 13, including every detail of the master batch preparation procedure described . . . in Iwasaki, it would be mere happenstance whether the resultant toner would have a haze factor above or below 20%, depending on the extent of kneading that the artisan happened to apply, since . . . the

extent of master batch kneading (not taught by Iwasaki) determines the haze factor of the produced toner." Applicants conclude that "a toner having a haze factor not greater 20% is not inherently disclosed in Example 13 of Iwasaki."

Applicants' assertions are not persuasive. At best applicants' assertions indicate that there is a possibility that the Iwasaki color toners do not provide toner images having the required haze factor recited in instant claims 1 and 25. Applicants have not come forward with any objective evidence to show that the Iwasaki color toners do not provide toner images having the required haze factor recited in instant claims 1 and 25.

Furthermore, although applicants' examples 2 and 4 are not inconsistent with the haze factor of the toner image depending on the duration of kneading of the pigment master batch composition, the evidence in the instant specification as a whole appears to show that the toner image haze factor depends on the degree of dispersion of the pigment in the binder resin in the toner due to all causes. For example, the mixture of pigment and binder resin is kneaded longer in the three-roll mill in example 2 than in example 4. Thus, it is reasonable to presume that the degree of dispersion of the pigment in the toner binder resin in example 2 is better than in example 4.

Example 1 of the instant specification, which exemplifies a yellow toner having a haze factor of 17%, only passes a previously mixture of pigment and binder resin "twice" passed through a three-roller mill, which is the same number of times exemplified in example 4. However, in example 1, the mixture has been previously kneaded and pulverized before passage through the three-roller mill. Thus, prior kneading and pulverization probably affect the degree of dispersion.

Iwasaki is also concerned with degree of pigment dispersion in the binder resin of its toner. As noted by applicants in their response filed on May 5, 2006, in example 13 of Iwasaki, the master pigment batch is prepared by mixing a binder resin, a pigment, and silica particles in a HENSCHEL mixer at a peripheral speed of 40 m/sec for 4 minutes, melt-kneading the resultant mixture in a twin-screw kneader-extruder, and pulverizing the cooled-melt-kneaded mixture with a feather mill. The resulting master batch is mixed with other toner components at a peripheral speed of 40 m/sec for 5 minutes and then the resultant mixture is melt-kneaded and pulverized to form toner particles.

According to Iwasaki, the addition of silica particles appears to "enhance the dispersion" of the pigment and improve the toner transparency. Iwasaki discloses that the silica

particles "deposit on particles of the disintegrated chromatic coloring material, which in effect prevents re-agglomeration of the chromatic coloring material. The reason for improvement of transparency may be that metal oxide particles [silica particles in example 13] serve to smooth the surface of a toner image after fixation, which the result that the possibility of irregular reflection on an image surface is reduced, which in effect leads to improved transparency." Col. 6, lines 8-20. Iwasaki teaches that the mixing with a HENSCHEL MIXER in the formation of the master batch exerts "a shearing force upon the materials being mixed . . . disintegration of secondary agglomerates of chromatic coloring material occurs under a stress due to the shearing of the mixer." Col. 6, lines 26-33. Iwasaki also teaches that at the melt-kneading step in the formation of the master batch, "the coloring material is subjected to a large shearing force due to high concentration of chromatic coloring material in the kneaded mixture, so that the coloring material is minutely dispersed." Col. 6, lines 42-45. Thus, Iwasaki teaches that mixing at high-shear is a result-effective variable.

Iwasaski also shows that color toners that provide full color images with better color reproducibility than the color toners in example 13 can be produced by using a master batch as

made by the steps in example 13, except that the mixing time in the HENSCHEL MIXER was changed from 4 to 10 minutes, or that the pigment and binder resin are mixed and disintegrated prior to mixing in the HENSCHEL MIXER with the silica particles. See Iwasaki, col. 17, lines 45-50; col. 18, lines 6-21; and examples 14, 18, and 19 at col. 19 and in Table 3. Iwasaki at col. 6, lines 34-38, discloses that the prior mixing and disintegrating of the pigment and binder resin makes "it possible to further enhance the dispersion of the chromatic coloring material." Thus, Iwasaki teaches that prior mixing is also a result-effective variable.

Accordingly, in light of the disclosure in Iwasaki, a person having ordinary skill in art would have readily recognized that color reproducibility and the transparency of the full color image depend on the degree of dispersion of the pigment in the color toners. For the reasons discussed above, the toner image haze factor recited in the instant claims also appears be dependent on the degree of the pigment dispersion in the toner.

Moreover, although Iwasaki discloses that the color reproduction of full color image obtained by the color toners in example 13 is "somewhat less favorable," as discussed in the rejection in paragraph 5 above, Iwasaki teaches that its color

toners are capable of providing fixed full color images with good color reproducibility and transparency. In addition, Iwasaki teaches that color toners obtained by using the master batch made by the method, as exemplified in examples 13, 14, 18, and 19, have "improved dispersion of the chromatic coloring material, high transparency, and good color reproducibility." Col. 6, lines 65-67. Furthermore, as discussed in the rejection in paragraph 5 above, Iwasaki shows that its color toners in example 13 provide "clear" full color toner images, i.e., transparent images.

In addition, although the determination of the quality of color reproducibility by Iwasaki may not the same as that of applicants in the instant specification, the examiner is merely using the available evidence of record to determine whether or not it is reasonable to transfer the burden to applicants to distinguish over the prior art toners. Furthermore, the Iwasaki color reproducibility property is consistent with the property taught by applicants as an advantage due to a toner providing a toner image having a haze factor not greater than 20% as recited in instant claims 1 and 25.

Thus, for the reasons discussed above and set out in the rejection in paragraph 5 above, the preponderance of evidence establishes a prima facie case that the Iwasaki color toners

provide toner images having a haze factor as recited in instant claims 1 and 25. Since the PTO cannot conduct tests, the burden is properly shifted to applicants to come forward with objective evidence to distinguish the claimed subject matter with the reference material. Applicants have not provided any objective evidence to show that the Iwasaski method of making its master batch by using the required particular mixing with the HENSCHEL mixer and the melt-kneading steps to does not produce a master batch that provides the necessary pigment dispersion to obtain color toners that provide toner images having the required haze factor. The "mere attorney argument" does not take the place of objective evidence; nor is it persuasive reasoning on the present record. Thus, it is reasonable to presume that the Iwasaki color toners provide toner images having the required haze factor recited in instant claims 1 and 25. Applicants have not met their burden to show otherwise. Accordingly, the rejections over Iwasaki in paragraphs 5-8 stand.

10. Claims 1, 4-7, and 25 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 22, 24, 26, 28-41, 44, and 45 (as listed in the claim listing filed on Nov. 2, 2005) of

copending Application No. 10/302,898 (Application'898) in view of Elsermans.

The claims are rejected for the reasons discussed in the office action mailed on Dec. 27, 2005, paragraph 10, which are incorporated herein by reference.

Applicants did not address this rejection in their response filed on May 5, 2006. Accordingly, the rejection is maintained.

As noted in the previous office action, applicants are reminded that if the "provisional" nonstatutory obviousness-type double patenting (ODP) rejection "is the only rejection remaining in the later-filed application, while the earlier filed application is rejectable on other grounds, a terminal disclaimer must be required in the later-filed application before the rejection can be withdrawn" (emphasis added). See the MPEP 804, section I.B.1. (Rev. 3, Aug. 2005). In this instance, not only is this rejection not the only remaining rejection, but the instant application is also the later-filed application.

11. **THIS ACTION IS MADE FINAL.** Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS

of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janis L. Dote whose telephone number is (571) 272-1382. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's acting supervisor, Mr. Nam Nguyen, can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry regarding papers not received regarding this communication or earlier communications should be directed to Supervisory Application Examiner Ms. Claudia Sullivan, whose telephone number is (571) 272-1052.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Janis L. Dote
JANIS L. DOTE
PRIMARY EXAMINER
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JLD
Jul. 18, 2006